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Paul A. Leipold
Eastman Kodak Company
Patent Legal Staff
343 State Street
Rochester, NY 14650-2201

EXAMINER	
BUTLER, PATRICK NEAL	

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS M. LANEY, PETER T. AYLWARD,
SANDRA J. DAGAN, BRUCE C. CAMPBELL and
KENNETH W. BEST, JR.

Appeal 2009-002886
Application 10/722,887
Technology Center 1700

Decided:[1] July 2, 2009

Before TERRY J. OWENS, JEFFREY T. SMITH, and
BEVERLY A. FRANKLIN, *Administrative Patent Judges.*

OWENS, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 19 and 40. Claims 21-26 and 29-39 also are pending, claims 31-39 of which have been withdrawn from consideration by the Examiner. Because claims 21-26, 29 and 30 stand rejected but are not on

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

appeal, we treat those claims as canceled. *See Manual of Patent Examining Procedure* § 1215.03 (8th ed., rev. 3, Aug. 2005).[2] We have jurisdiction under 35 U.S.C. § 6(b).

The Invention

The Appellants claim a method for making a permeable microvoided polylactic acid-based monolayer film. Claim 19 is illustrative:

19. A method of making a permeable microvoided sheet, which method comprises:

(a) blending void initiating particles into a melt comprising a polylactic-acid-based material, wherein the void initiating particles are employed in an amount of 30-50% by volume in feedstock for the permeable microvoided sheet prior to extrusion and microvoiding,

(b) extruding said polylactic-acid-based materials as a monolayer film to form a sheet comprising a layer of a polylactic-acid-based material containing inorganic particles; and

(c) stretching the sheet biaxially, in which both draw ratios in the longitudinal and transverse directions are greater than 3 times and not more than 5 times and the area ratio between the non-stretched sheet and the biaxially stretched film is greater than 10 times and not more than 20 times, to form interconnected microvoids around the inorganic particles, thereby obtaining a permeable microvoided sheet that is a monolayer film of polylactic-acid-based material having a total absorbent capacity of at least about 14 cc/m².

The References

Morita	5,405,887	Apr. 11, 1995
Matsumoto	5,443,780	Aug. 22, 1995
Laney	6,379,780 B1	Apr. 30, 2002

[2] Upon return of the application to the Examiner, the Examiner should cancel claims 21-26, 29 and 30 that are rejected but not on appeal, and also withdrawn claims 31-39.

The Rejections

Claims 19 and 40 stand rejected under 35 U.S.C. § 102(b) over Morita, and under 35 U.S.C. § 103 over Matsumoto in view of Laney.

OPINION

We reverse the Examiner's rejections.

Rejection under 35 U.S.C. § 102(b) over Morita

Issue

Have the Appellants shown reversible error in the Examiner's determination that Morita discloses stretching a film biaxially using draw ratios greater than 3 times and not more than 5 times such that the area ratio between the non-stretched and biaxially stretched film is greater than 10 times and not more than 20 times, so as to obtain a monolayer film having a total absorbent capacity of at least about 14 cc/m^2?

Findings of Fact

Morita discloses a porous film which comprises a polylactic acid-based resin and a finely-powdered filler and has high moisture permeability, breathability and flexibility that render it useful as a leakproof film for a disposable paper diaper and other sanitary materials, packaging and filter media (col. 1, ll. 12-22). The amount of the finely-powdered filler "is from 40 to 250 parts by weight, preferably from 60 to 150 parts by weight per 100 parts by weight of the polylactic acid-based resin composition" (col. 6, ll. 62-65). The extruded film is stretched from 1.1 to 10 times, preferably from 1.1 to 7 times at least in the direction of the axis, and the stretching can be carried out in multiple steps or biaxially (col. 7, ll. 28-31).

Analysis

The Examiner has the initial burden of establishing a prima facie case of anticipation by pointing out where all of the claim limitations appear, either expressly or inherently, in a single reference. *See In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990); *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1255-56 (Fed. Cir. 1989); *In re King*, 801 F.2d 1324, 1327 (Fed. Cir. 1986).

The Appellants argue that Morita does not disclose "stretching the claimed sheet biaxially, in which both draw ratios in the longitudinal and transverse directions are greater than 3 times and not more than 5 times (or at least 3.3 times according to claim 40), and the area ratio between the non-stretched sheet and the biaxially stretched film is greater than 10 times (or at least 11 times according to claim 40) and not more than 20 times, to form interconnected microvoids around the inorganic particles, thereby obtaining a permeable microvoided sheet that is a monolayer film of polylactic-acid-based material having a total adsorbent capacity of at least about 14 cc/m^2" (Br. 3). The Appellants argue that the Examiner "merely selects from various broad stretching ranges found in Morita et al., using hindsight based on Applicants' own disclosure" (Br. 4).

The Examiner argues that Morita's disclosure of preferred stretching 1.1 to 7 times (col. 7, ll. 28-29) is a disclosure of draw ratios between 3 and 5 (Ans. 6).

To arrive at the Appellants' draw ratio of greater than 3 to no more than 5, that range must be selected from Morita's broader 1.1 to 7 range. In *Atofina v. Great Lakes Chemical Corp.*, 441 F.3d 991, 999 (Fed. Cir. 2006), the court stated that a temperature range of 100 to 500°C which entirely

encompassed a range of 330 to 450°C did not anticipate that narrower range because "[g]iven the considerable difference between the claimed range and the range in the prior art, no reasonable fact finder could conclude that the prior art describes the claimed range with sufficient specificity to anticipate this limitation of the claim." Likewise, Morita's 1.1 to 7 range does not describe the narrower greater than 3 to not more than 5 range with sufficient specificity to anticipate that range. Also, for that reason the Examiner lacks adequate support for the Examiner's argument that the films of Morita and the Appellants are made by the same process and that, therefore, Morita's film necessarily has the 14 cc/m^2 absorbent capacity of the Appellants' film (Ans. 5-6).

Conclusion of Law

The Appellants have shown reversible error in the Examiner's determination that Morita discloses stretching a film biaxially using draw ratios greater than 3 times and not more than 5 times such that the area ratio between the non-stretched and biaxially stretched film is greater than 10 times and not more than 20 times, so as to obtain a monolayer film having a total absorbent capacity of at least about 14 cc/m^2.

Rejection under 35 U.S.C. § 103 over Matsumoto in view of Laney

Issue

Have the Appellants shown reversible error in the Examiner's determination that the applied references would have rendered prima facie obvious, to one of ordinary skill in the art, a microvoided monolayer polylactic acid-based film?

Findings of Fact

Matsumoto discloses a method for making an oriented polylactic acid film by "melting and extruding polylactic acid to form a film and, after it is cooled rapidly, carrying out a uniaxial stretching or a simultaneous biaxial stretching at a temperature above the glass transition temperature and below the cold-crystallization temperature" (col. 1, ll. 30-32, 39-44). The exemplified biaxial stretching ratio is 2.5 x 2.5 (col. 3, ll. 42-43). Matsumoto does not disclose that the sheet comprises microvoids.

Laney discloses an imaging support comprising a microvoided ink permeable polyester layer on a substantially impermeable polyester base layer, having a total absorbent capacity of at least 14 cc/m^2 (col. 2, ll. 20-24; col. 4, ll. 19-31). Microbeads are used for void generation in the ink permeable layer in an amount of 30-50 % by volume (col. 4, ll. 23-24; col. 10, ll. 58-61). The imaging support preferably is "made in one step with the permeable layer and the bottom base layer being coextruded, stretched, and integrally connected during formation" (col. 2, ll. 39-41). The stretching can be biaxial at a draw ratio of 1.5 to 4.5 (col. 11, l. 63 – col. 12, l. 4). Laney does not disclose an imaging support comprising a microvoided ink permeable polyester layer in the absence of a base layer.

Analysis

Establishing a prima facie case of obviousness of an invention comprising a combination of known elements requires "an apparent reason to combine the known elements in the fashion claimed." *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) .

The Appellants argue that "Laney explicitly teaches that the permeable microvoided sheet comprises both a permeable layer and a base

layer integrally extruded (column 2, lines 38-41)" (Br. 5). The Appellants further argue that Comparative Examples 4 and 5 in their Table 2 (Spec. 23:16-21) show that attempts to form a microvoided polyester monolayer film without a base layer were not successful. *See id.* The Appellants argue that Matsumoto would not have provided motivation for microvoiding the polylactic acid film because doing so would reduce the desired tensile strength (col. 3, ll. 52-57) (Br. 6).

The Examiner argues that "although the voids may not be relied upon for strength given their absence of material, the arguments of counsel regarding the strength of the voided material cannot take the place of evidence in the record" (Ans. 9).

The Appellants' argument that microvoids would reduce the tensile strength of Matsumoto's film (Br. 6) is reasonable and consistent with common sense. Thus, to rebut the argument more is needed than merely pointing out that it is argument of counsel.

The Examiner argues that "[i]t would have been obvious to use Laney's teaching for using microbeads in the polyester material taught by Matsumoto because of the absorbency properties which efficiently absorb printed inks without the need of multiple processing steps or multiple coated layers (see Laney col. 2, line 62 through col. 3, line 1)" (Ans. 5).

Laney's elimination of the need for multiple processing steps or multiple coated layers is a benefit of Laney's coextrusion of the base layer and the ink absorbing layer (col. 2, l. 62 – col. 3, l. 1). The Examiner has not established that one of ordinary skill in the art would have considered that disclosure to be applicable to a monolayer film.

The Examiner argues that "Laney's teaching of using a backing is indicated as being a reinforcement (see col. 3, lines 1-7) which is less critical than Applicant's interpretation of the backing being an absolute in Laney to avoid failure" (Ans. 9).

Laney discloses that the base layer provides physical integrity to the highly voided absorbing layer (col. 3, ll. 1-5). The Examiner has not established that one of ordinary skill in the art would have considered a layer that provides physical integrity to the highly voided absorbing layer to be dispensable such that the highly voided absorbing layer exists as a monolayer. Nor has the Examiner established that one of ordinary skill in the art would have expected Matsumoto's polylactic acid to have higher physical integrity, when microvoided, than Laney's microvoided polyester such that Matsumoto's polylactic acid, when microvoided, is useful in the form of a monolayer.

Conclusion of Law

The Appellants have shown reversible error in the Examiner's determination that the applied references would have rendered prima facie obvious, to one of ordinary skill in the art, a microvoided monolayer polylactic acid-based film.

DECISION/ORDER

The rejections of claims 19 and 40 under 35 U.S.C. § 102(b) over Morita and under 35 U.S.C. § 103 over Matsumoto in view of Laney are reversed.

It is ordered that the Examiner's decision is reversed.

REVERSED

tc

PAUL A. LEIPOLD
EASTMAN KODAK COMPANY
PATENT LEGAL STAFF
ROCHESTER, NY 14650-2201